(54) Title: METHOD AND SYSTEM FOR THE DERIVATION OF HUMAN GAIT CHARACTERISTICS AND DETECTING
FALLS PASSIVELY FROM FLOOR VIBRATIONS
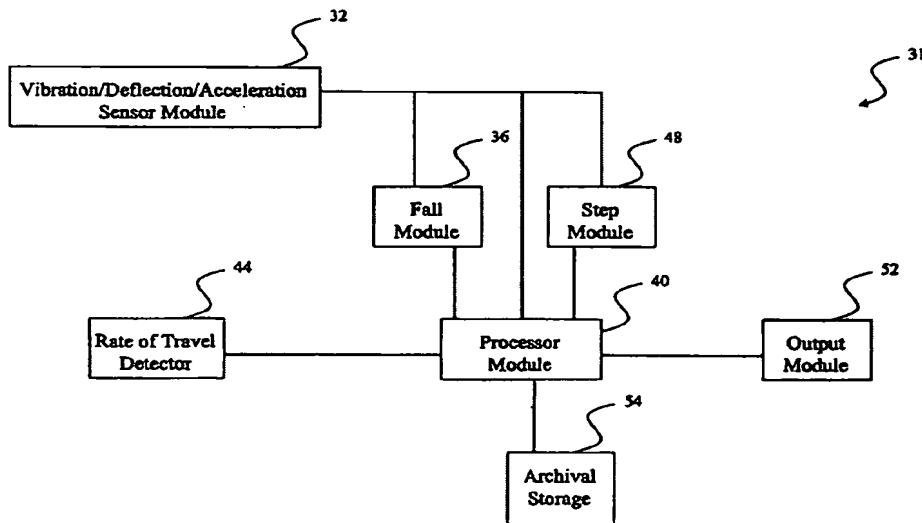
(57) **Abstract:** The gait monitor system and method provides various basic gait parameters including step count, cadence, and step
duration, in addition to its ability to distinguish between normal, limping and shuffling gait modes, as well as determine falls. More-
over, this gait monitor may be provided with additional sensors, e.g. beam break at the beginning and end of a corridor to estimate
average walking velocity (with the distance between the beams known or determined); this enables the calculation of additional gait
characteristics such as average step length and average stride length. These parameters can additionally be used to detect various
gait anomalies and other diagnostic information.